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ABSTRACT

Described is Project IMPACT (Instructional Model Program for all Children and Teachers), funded under Title III and intended for use by teacher trainees and by regular classroom teachers of learning disabled or emotionally disturbed students from kindergarten through grade 12. Discussed in an introductory section on classroom applications are efforts by specially trained IMPACT personnel to conduct inservice teacher training workshops in diagnostic/prescriptive methods, and the use of the IMPACT box (which includes materials teachers can administer to assess students' academic, learning and behavior skills), followup consultation, and observation within demonstration classrooms. Also presented is information on operating costs and evidence of project effectiveness (including improvement in students' self concepts and attitudes toward learning). Dealt with in Part II are IMPACT dissemination services at the community and university level in terms of workshops for classroom teachers, lectures, use of instructional materials, participation in graduate students' practicum experiences, and consultation for both classroom teachers and teacher trainees at Andrews University in Michigan. (LH)

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IMPACT - Mainstreaming Learning Problems in the Classroom

Part I In Classroom

Part II Dissemination at University

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Paper Read at
Fifth Southwestern Regional Conference
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Part I

Introduction

The IMPACT project in Berrien County, Michigan, is mainstreaming help to students having learning problems in the classroom. IMPACT stands for Instructional Model Program for all Children and Teachers. It has a dual purpose of teacher training and providing aid to the handicapped student. The location of the project is: Berrien County Intermediate School District, 711 St. Joseph Avenue, Berrien Springs, Michigan 49103. The Project was originally funded through the Federal Government's 1965 Elementary and Secondary Educational Act (ESEA) Title III. During the third year of operation the project passed state and federal validation receiving the highest possible score. During 1974-1975 school year IMPACT was one of the six programs again funded by ESEA Title III through the Michigan State Department of Education for purposes of information dissemination.

Goal: The goal of the project is to develop and implement a flexible instructional model by training general classroom teachers in the use of diagnostic/prescriptive teaching techniques along with classroom management and organizational procedures which allow them to meet the needs of children with learning and adjustment problems in their classrooms.

Objectives: 1) The teacher participating in IMPACT will determine the academic and behavioral needs of certain students by implication of the IMPACT assessment and programming material activities. Seventy-five percent of the students selected for assessment by teachers participating in IMPACT will meet the performance objectives developed on the basis of that assessment.

2) IMPACT will disseminate information concerning its activities on a local and national scale.

Program Description: IMPACT is an ESEA Title III project which developed in Berrien County, Michigan, out of the request from teachers for help and programming for certain children in their classrooms who were having learning or behavior problems which were preventing them from functioning effectively. Key components of the IMPACT program are: the teacher training workshop, the IMPACT Box, follow-up consultation, and demonstration classrooms.

Context: Project IMPACT operates through the Berrien County Intermediate School District in Berrien County, Michigan. The project has been successfully used in fifteen of the sixteen public school districts in Berrien County and two parochial schools. Currently, project IMPACT is training teachers in twelve districts within Berrien County and in eight of the schools in Grand Haven, Michigan. The population of these school districts is diversified in racial, ethnic, and socio-economic backgrounds. Employment is mainly found in industry and farming. In the 1973-74 school year, 44,104 children were enrolled in Berrien County Schools. The pupil size of the K-12 school districts range

from 10,656 to 842 pupils.

The state equalized evaluation for Berrien County is $924,511,611. The evaluation per pupil range from $126,795 to $11,706 in the K-12 districts.

Rationale: There are many handicapped children placed in special education programs who could better be served in general education programs. The general purpose classroom may enhance the child's feeling of normality since he is in a normal setting, and his academic performance may improve as a result of this as well as the structure of a general purpose classroom. The general purpose classroom obviously cannot meet the needs of all handicapped children;

The IMPACT workshop program is dedicated to providing general purpose classroom teachers with the skill to provide the needs of those handicapped children who would profit more from that setting. Furthermore, there are many children in the general purpose classroom who do not have learning or adjustment problems severe enough to warrant placement in a special education program but who require special accomodation in order for their needs to be met. The development of certain diagnostic and programming skills benefits these children as well.

At the onset of this project, special education classes in Berrien County had the capacity for serving 50 children considered to be emotionally disturbed or learning disabled and 540 mentally impaired students. A survey mandated by public act 220 indicated that teachers would request evaluation for 666 children for the condition of emotional disturbance and 477 children for the condition of learning disability and 914 for mental impairment. Even if a significant over referral is granted, this survey indicates the presence of more children than were being served and more than could reasonably be served in a special education facility.

During this time, the capacity had expanded from service capability of 50 EI/LD children and 540 EMI children to 370 EI/LD children and 690 EMI children. Thus, while the classroom services available for children considered to be handicapped had grown markedly, this had not greatly changed the evaluation activities related to special education.

These data support the impressions of the special education consultants. To wit, general education personnel require assistance to meet the needs of problem children in their own classrooms without placement in special education. Also, in the average elementary classroom, approximately 25% of the students have learning or behavior problems which cause them to function one and one half to two years below expected levels.

Teacher Inservice: During the past three years, the IMPACT staff has trained 176 general purpose classroom teachers from Berrien County, Michigan, in the use of the diagnostic/prescriptive methods. Currently, the staff is training eighty teachers from schools in Berrien County and the Grand Haven school district outside of the area. These participants represent fifteen of the sixteen public school districts and two parochial schools. The instructional level of these school districts is K-6. Project funds were used to provide substitutes for participating teachers for five full days to workshop attendants. During the 1974-75 year, local districts are purchasing substitutes and the IMPACT Box.

A three-fold delivery system is used. They include attendance at a five session workshop, viewing of demonstration classrooms and receipt of the IMPACT Box.

The workshops are organized on the basis of a performance objective system. The objectives incorporate the modular approach including the behavioral objective, content related to objective, system for delivering content and mode of evaluation.

Delivery systems used in the IMPACT workshops included activities such as matching and sorting, teacher games, small group discussions, role playing and listening centers. The listening centers are particularly useful for familiarizing teachers with instructional materials. Cassette tapes are prepared for each of six centers at which teachers reviewed instructional materials and performed directed activities. Rotation from center to center occurs on an organized basis.

The prime source of modular content is found in the IMPACT Box. This is a step by step diagnostic/prescriptive program using teacher administered, non-standardized assessment techniques in academic skills, behavior and learning processes. Approximately 300 of these boxes are being used throughout the county. The box is published commercially by Academic Therapy Publications, San Rafael, California.

Participating teachers are asked to select from their classes, two children characterized by learning or adjustment problems. These children become the foci of the diagnostic/prescriptive procedures which the teachers learned in the workshops. Using the twelve principles cited in "A Success-Oriented Curriculum," the teacher organizes her classroom to accommodate these children. Then, using the IMPACT Assessment Inventories, teachers determine a child's strengths and weaknesses in Academic Skill and Behavior areas. A prescriptive program is written and systematically reviewed by both teacher and consultant. A similar procedure is used to assess and program for problems in the Learning Process (disability) area.

Eight demonstration sites are operating in public schools throughout the Berrien County for observation and teacher purposes.

The four-person IMPACT staff is composed for specialists in the following areas: Emotionally disturbed, learning disabilities, early childhood development, and elementary education. IMPACT staff have presented the program at the National Association for Supervision and Curriculum Development, National Association of Elementary School Principals, North American Division of Seventh-Day Adventist Superintendents and Supervisors. Other state representations included Michigan Association for School Curriculum Development, Michigan Association for Children with Learning Disabilities, Council of Exceptional Children, Tri-County IRA (International Reading Association). Local presentations were made to school psychologists, AAUW (Association for American University Women), School Boards, PTA's, superintendents, principals, and parents. Curriculum and Reading classes at Western Michigan University and at Andrews University also incorporated IMPACT into their program. Michigan State University now gives graduate credit for participation in the IMPACT workshop.

Following state and federal validation, IMPACT received the Educational Pacesetter Award from the President's National Advisory Council on Supplementary Centers and services. During fourth year funding, the IMPACT staff will be concentrating on the system's exportability by training the staff of the Grand Haven Public School and developing an IMPACT in-service workshop kit. Local school districts in Berrien County will use their own funds to release teachers for workshops and provide materials during the 1975 fiscal year.

Costs: Total project costs during the three operational years have included professional, clerical staff, teachers and aide salaries. During the first year, capital outlay provided specific furniture, remodeling expenses, as well as equipment. A wide variety of instructional materials were purchased for use and evaluation during all three years. The budget for each year included staff development, fixed costs, staff travel allocation and evaluation expenditures. There will be a distinct difference between the project's development cost and the costs to a potential adopter to replicate the project model. Start up in operation costs for adapting/adopting the workshop series would depend upon the local district's intensity in the following areas:

1. Building facilities. A meeting room is necessary for workshops. However, whether the local district desires to remodel for observation booths or demonstrational classrooms, is optional.

2. Teacher inservice. Releasing teachers during the regular school day is highly recommended. It would be necessary to multiply the rate of substitute pay per day times the number of days in session times the number of teachers attending the workshop series or include inservice days for teachers in addition to student attendance days.

3. Consultants. It is recommended that two consultants be available for presenting the workshops.

4. Consultant costs for follow-up visits to participating teachers at the conclusion of the workshop series. This will vary depending upon the amount of the visitation time used. We recommend that each teacher be visited one hour monthly. One consultant may see 25 teachers per week.

5. The IMPACT Box. Multiply the cost of the box times the number of participating teachers.

6. The IMPACT workshop training kit. The initial kit could be used for any number of teachers and used year after year. Only consumable replacements would be necessary.

The per learner cost for project IMPACT is $54.54. The formula provided in the application for validation was employed to compute this figure. The specific figures used were as follows: 59,588 - Total operational costs divided by total number of teachers trained during the budget period, divided by thirteen total number of months in the grant period.

Minimum costs adapting the workshop series requires the purchase of the IMPACT workshop training kit and an IMPACT Box for each teacher. If the workshop would be held on a school day, the cost of substitute pay would be an additional cost. By using local staff for workshop trainers, costs would be reduced.

EVIDENCE OF EFFECTIVENESS:

The objectives of Project IMPACT are directed to meeting the needs of exceptional children in the general purpose classroom. In order to meet these objectives, certain administrative procedures were initiated. In addition to the administrative procedures, the IMPACT personnel operated workshops for teachers in Berrien County registered as IMPACT teachers. The purpose of the workshop was to present information to teachers which would alter their knowledge base and skills necessary to effectively meet the needs of exceptional children. The information presented at the workshops centered around identification/assessment, materials/techniques for writing prescriptive programs and changes in the learning environment applicable to meeting the educational needs of the exceptional learner.

Program Objectives:

1. The teacher participating in IMPACT will determine the academic and behavioral needs of certain students by application of the IMPACT assessment in programming materials and activities. 75% of the students selected for assessment by the teachers participating in IMPACT will meet the performance objective developed on the basis of that assessment.

2. IMPACT will disseminate information concerning its activities on a local and national scale.

Evaluation Activities: An evaluation team consisting of Dr. Rodney Roth, Dr. Robert Howell, and Mr. Uldis Smidchens of the R.E.D.E. Center of Western Michigan University at Kalamazoo, Michigan, were contracted to design tools for measuring project effectiveness.

Evaluation of Administrative Procedures. Once a month an evaluator from the R.E.D.E. Center at Western Michigan University visited IMPACT in order to determine the extent to which the objectives relating to the maintenance of the administrative procedures were met and to assist the staff in solving problems with respect to gathering data for purposes of evaluation of the project. Reports of weekly staff meetings, planning sessions, director/staff interviews, the project timeline and presentation logs were reviewed monthly by a member of the R.E.D.E. Center, Dr. Uldis Smidchens. Dr. Smidchens filed a written report on each monthly evaluation. His final report states; "The IMPACT Project has met all of the procedural objectives stated in the proposal. The project was efficiently administered and all aspects of the project which needed coordination were well coordinated."

Evaluation of the Workshop Program. In preparation for the workshops to be presented to selected teachers, the IMPACT personnel developed information modules. In each module the IMPACT personnel stated specifically what the workshop participants were to achieve in terms of skills and knowledge. These modules were then forwarded to the project evaluator for the purpose of having pre and post tests constructed. Two such instruments were designed. The first test covered information presented to the teachers in the workshop sessions on academic skills and behavior assessment and programming. This test was administered before the first and after the third sessions of workshops.

The second test covered content presented in the fourth and fifth session which deals with assessment and programming for children with disorders in the learning process areas. This test is administered before the fourth session and after the fifth session. The test designed consisted of knowledge items in the form of multiple choice, true/false, short answer and matching. Upon completion, all tests were then forwarded to the project evaluator for scoring and analysis. The analysis of the test results on the workshop program was completed using a correlated t procedure.

Workshop Test Results
Table I

Workshop Series I	Maximum Possible Score	Group Mean	Standard Deviation	Variance	Correlated t
Pre Test	45	15.28	4.60	21.14	18.54*
Post Test	45	27.85	6.60	43.56	
Workshop Series II					
Pre Test	26	9.34	2.26	5.10	12.53*
Post Test	26	15.97	4.54	20.67	

*Significant at .001 level.

Field Data Collection:

Teacher Change. In order to measure teacher change along the dimensions of classroom organization, teaching strategies and curriculum design, including the use of diagnostic/prescriptive procedures, observation and interview instruments were devised by Dr. Howell. These instruments were based upon the ideas and constructs conveyed by the IMPACT workshop materials. An instrument was also devised for interviewing principals in order to arrive at their estimate of teacher change. Forty teacher participants selected by means of random numbers by Dr. Howell were observed in their classrooms before they participated in the workshop series and at the end of the project year. These same teachers and their participants were also interviewed at the conclusion of the project year. The observations and interviews were conducted by a group of Western Michigan University graduate students selected and trained in the use of the observation and interview instruments by Dr. Howell. The collection data was submitted by Dr. Howell for tabulation and analysis. Three evaluation components involved collecting data on sight in the school where the workshop participants taught; they are, observation of teacher participant classroom, teacher interviews and principal interviews.

For ease of the collection procedures, a project evaluator constructed a data collection form which was consistent with the kind of information required. Certain graduate students of Western Michigan University were trained to use the forms. Field testing of the forms was completed in local schools in Kalamazoo. Observers were paired for observations and interviews for the purpose of running a reliability check. The results indicate a 95% agreement of the interviews and a 90% agreement on the observation.

Summary of Classroom Observation. Classroom observations related to three main areas. Physical arrangement, behavior management and learning centers. In respect to physical arrangement, it was noted that the teachers change their manner in which they arrange the learning environment. The results of the category of behavior management indicated significant changes in the teachers' ability to manage behavior in the classrooms. Following the workshops, learning centers were used for teaching and remediating as well as reinforcement activities. The following items of the classroom observation form are significant at the .05 level.

Classroom Observation
Table II

Observation Item	Pre Workshop	Post Workshop	Chi Square
A. Physical Arrangements			
1. Desks in groups/learning center	22.9%	48.6%	3.98*
2. Desks/observable learning centers	5.7%	31.4%	6.05*
3. Other arrangements	45.7%	11.4%	8.47*
B. Behavior Management			
1. Behavior rules posted in class	22.9%	62.9%	9.86*
2. Stating outcomes positively	60.0%	17.1%	11.82*
3. Classroom violations 1-5	73.3%	31.4%	11.24*
4. Classroom violations 6-10	14.3%	0.0%	11.24*
5. Students did not seem to need teacher controls	20.0%	60.0%	19.06*
C. Learning Centers			
1. Observable learning centers	45.7%	80.0%	7.40%
2. Type: Reinforcement center	22.9%	62.9%	9.86*
3. Use: Small group interaction	22.9%	54.3%	6.03*
Use: Individual	34.3%	77.1%	11.35*
Use: Teacher/child	14.3%	60.0%	13.77*

*Significant at .05 level.

Through classroom observation it was found that teachers changed the manner in which they arranged the learning environment with 80% of the teachers incorporating learning centers into the classroom organization at the end of the year to 46% in the fall. Improved ways of utilizing learning centers was also noted. In terms of behavior management, significantly fewer classroom violations were noted after the workshop program. Students needed less teacher control.

Teacher Interviews: The results of the teacher interviews support the findings of the observations to a great extent. There was an increase from 41% to 77% of the teachers reporting the use of learning centers with significantly more teachers indicating the use of learning centers in a variety of ways. Teachers integrated the reading (increase from 38% to 74%), language (from 21% to 53%), and perceptual training programs (from 15% to 48%) into learning centers significantly more. There was also significant increase (from 27% to 71%) in the number of teachers involving all children in learning centers.

In terms of behavior management, significantly more teachers (from 62% to 94%) noted changes in children as a result of specific behavior management techniques. Planned ignoring as a management technique was used by significantly more teachers (increasing from 71% to 94%).

The results also suggest that teachers have changed in respect to how they are meeting the needs of children with learning difficulties. A significantly greater number of teachers, following the workshop, are: assessing children, specifying learning problems, establishing objectives and implementing programs to help the child become a more effective learner. Significantly more teachers noted that children for whom special programming was done fit better into their classrooms (increasing from 50% to 88%) and that these children improved in their attitude toward themselves (from 38% to 91%) and others (from 32% to 62%).

Principal Interviews: Results of the principal interviews support the observations and interviews with teachers. Interviewed before and after the workshop program, there was a significant increase in the number of principals who felt their participating teacher was knowledgeable regarding the various kinds of exceptional children (from 41% to 74%), regarding the services available for exceptional children (from 38% to 62%), and regarding methods and materials appropriate for children with special problems (from 29% to 59%). A comparison of group means of ratings given participating teachers on a series of ten educational factors by their principals yielded significantly higher ratings for each of the ten factors at the conclusion of the program.

Actual IMPACT assessment was done and results were recorded on an Assessment Profile by participating teachers on 98% of the selected children.

Student Program Forms: An expected result of teacher growth in cognitive knowledge and change in instructional strategies with subsequent change in students, especially those students with learning or adjustment problems.

Specifically, children with learning deficits or behavior problems, were expected to have some identified deficits remediated or problems ameliorated. Along with the emphasis on remediation, there occurred a stress on accommodating the student's problems, i.e., making adjustments in curriculum and teaching strategies in order to make living with a problem easier for the child.

One concern of the project was that the children selected for individualized programming by the teachers did indeed have learning or behavior problems. To verify this, special education records were reviewed to determine the number of children who had been tested by a school psychologist or learning disabilities specialist. It was found that 47% of all children selected had been evaluated by Berrien County Intermediate School District Special Education personnel. Of the children programmed by teachers following IMPACT procedures, 84% met criteria established in three areas of handicapped, emotionally impaired, mentally impaired, and learning disabled.

Following the selection of children for special programming, teachers administered the IMPACT assessment inventories on Academic Skill, Behavior, and Learning Process areas. Long and short range objectives were written on IMPACT program forms. Long range objectives were written on the assessed areas and projected to be met by April 15. This allowed for a period of approximately five months from fall workshop in October to April to complete small short term objectives which would successfully bring the child to the desired long range objective. Of the 166 children selected for IMPACT Assessment and Programming by the teachers, 161 were programmed following IMPACT procedures. Five children moved to schools not involved with the program. IMPACT assessment and programming procedures were used on 98% of the students.

Objectives Stated, Met
Table III

I.	Short Term Objectives Stated	841)	-97% Met
	Short Term Objectives Met	822)	
II.	Long Term Objectives Stated	199)	-80% Met as Stated
	Long Term Objectives Met	162)	
	Long Term Objectives Revised	32	
	Long Term Objectives Met as Revised	29	
	Long Term Objectives Met as Stated or Revised	191	

Due to the length of time over which long range objectives ran, revisions in the objectives were felt justifiable for certain reasons:

1. Identification of underlying or more primary problems through informal or formal assessment done by teacher, school psychologist or other resource.

2. Objective originally written in an insufficiently clear manner.

3. Progress toward the long range objective unexpectedly slow although designated programming had been implemented. This may have been indicated by either:

   a) one short term objective unmet four weeks after target date or

   b) two short term objectives in succession unmet two weeks after target date

4. Prolonged or frequent absence of child or teacher.

It will be noted that these justifications for revision exclude lack of teacher motivation or capability in programming so that at no time were long range objectives revised for this reason. The number of long range objectives which were revised was 32 or 16% of all long range objectives written. Of these revised objectives, 29 were met. The overall total then, of the long range objectives met include the 29 met as revised plus the 162 met as originally stated or 191. With the correction factor applied, 93% of all the long range objectives stated were met either as originally stated or as they were revised. Both this figure and the figure of 79% for long range objectives met as originally stated exceed the 75% target as stated in the project proposal.

Student Program Summary: Following the IMPACT workshop consultation program teachers reported the following.

1. 89% of the children seemed to fit better in the classroom after special programming was begun.

2. 79% of the children improved their attitude about learning and 87% of the children improved their attitude about themselves.

Conclusions: On the basis of the results of the 1973-74 project year, with regard to the workshop as a related consultation program, the following conclusions can be drawn:

1. The IMPACT workshop consultation program results in change in teacher's behavior and cognitive knowledge. These changes enable IMPACT teachers to: a) assess and program for children with special learning or behavior problems and b) implement learning principles consistent with successoriented curriculum and in particular to use learning centers to facilitate programming for exceptional children.

2. Children with learning or behavior problems can have critical difficulties remediated or accommodated in the general purpose classroom setting when taught by IMPACT teachers. A related, though more tentative conclusion, is that all children in the class of an IMPACT teacher profit from their teacher's changes in behavior and growth and cognitive knowledge.

3. Teachers are able to identify children with learning and behavior problems on the basis of their instructional activities with the children and through observation. This identification is not necessarily categorical but does include those children who are in need of special programming.

4. Certain elements of the IMPACT workshop consultation program are critical to success. Among these are the following:

   a) organization based upon a performance objective format.

   b) opportunity for participating to view sound learning principles in practice in demonstration classrooms.

   c) the availability of commercial materials and/or teacher materials for use by workshop participants.

   d) information related to classroom organization and diagnostic/prescriptive procedures catalogued in a central convenient source: IMPACT Box.

   e) frequent and regular consultation with IMPACT participants.

   f) a low teacher/consultant ratio.

Additional Evidence of Project Effectiveness: The following are a selected sample of additional project achievements documented in the Project Staff Log that demonstrates its effectiveness:

- For the 1973-74 year, 516 people attended presentations within Berrien County, 728 attended state presentations and information displays, and 1,056 visited the IMPACT demonstration classrooms.

- After reviewing IMPACT material, Michigan State University agreed to give college credit to teacher participants during the 1973-74 and 1974-75 school year.

- Academic Therapy Publications of San Rafael, California, purchased the copyright on the IMPACT Box for commercial production.

- IMPACT Boxes are being used by teachers in Berlin and Frankfurt, Germany; Palm Springs, Florida; Kansas City, Kansas; Lexington, North Carolina; Washington, D.C.; several areas in Arizona, and many areas around Detroit, Michigan as well as Ontario, Canada and Dhaharan, Saudi Arabia.

The results indicate workshop participants gain knowledge about children and teaching. There are also strong indications that principles suggested by IMPACT are effective in meeting the needs of exceptional children and teachers seem to be more effective when implementing these procedures. Administrators were positively impressed by changes in children and teachers. In closing, it appears that the principles and procedures presented in the workshops were not only mastered by teachers but also implemented in their classroom.

PART II

Dissemination at University

Dissemination and Cooperation at University

The IMPACT project administered by the Berrien County Intermediate School System in Berrien Springs, Michigan, not only serves the public and parochial elementary and secondary schools in the area but provides professional assistance to local universities and the community. Andrews University is one recipient of its dissemination services.

A justifiable criticism of educational instruction in many institutions of higher education is, there is too much emphasis placed on theory in teacher training classes and not sufficient opportunity provided for practical experiences. Many university professors are not having relevant professional contact with current problems and practices in the classroom and often university students are not being given an opportunity to become cooperatively involved with in-the-field-teachers to solve these problems. Thus, there is a tendency for method class boredom.

Turning this criticism into a project was a goal of some Andrews University teacher trainers. An effort was made to counteract these charges by becoming involved in a number of local, county, state, and national educational programs including the IMPACT project. Through a cooperative effort there has been a sharing of services and personnel between the university and IMPACT in workshops, lectures, use of materials, practicum participation and consultations.

Workshops

University laboratory school classroom teachers participated in IMPACT workshops presented at the Intermediate Office on Learning Disabilities. The purpose of these is to aid the classroom teacher, in identifying disabled learners as well as those having adjustment problems and to instruct these children according to their individual needs within the regular classroom by diagnostic/prescriptive teaching techniques along with classroom management and organizational procedures. The training received is also designed to assist the classroom teacher to program for those special education children being mainstreamed into the regular classroom.

As a result of the workshop there is an expected result of teacher growth in cognition and change regarding instructional strategies. There is subsequent change in students, especially those students with learning or adjustment problems. Specifically, children with learning deficits or behavior problems are expected to have some identified deficit remediated or ameliorated. Along with the emphasis on development and remediation, there occurs a stress on accommodating the student's problems, i.e. making adjustment in curriculum and teaching strategies which enable the child to achieve some degree of success in the classroom.

Through developmental series of teacher training workshops covering the course of one school year, teachers are systematically guided in techniques for creating programs to meet the needs of children. The IMPACT program is designed to meet the needs of three types of students: 1) the child with limited learning potential, 2) the child with behavior adjustment problems and 3) the child who, although he has adequate learning potential, experiences difficulty in some learning situations.

The objectives of the workshop program relate to providing teachers with additional skills in the: 1) Implementation of a success-oriented curriculum, 2) Assessment of Academic, Behavior and Learning Problems, 3) Prescription of materials and techniques, 4) Systematic programming utilizing strengths to remediate weaknesses. Inasmuch as the workshops are oriented to developing specific skills and knowledge, each workshop session is organized around a series of modules. Each module includes a behavioral objective for the workshop participant, the materials needed, the content related to achieving the objective, the system for delivering that content, and evaluation of the objective.

The IMPACT workshop format consists of:

Session I Classroom Organization and Twelve Principles of a Success-Oriented Curriculum.

Session II Assessment of Academic Skill Deficits and Beahvior Problems.

Session III Prescription for Remediation of Academic Deficits and Behavior Problems.

Session IV Assessment of Learning Process Deficits Related to Developmental Lag or Learning Disabilities.

Session V Prescription for Remediation and/or Accomodation of Learning Process Deficits.

The classroom teacher is the most capable person to guide the child through appropriate techniques and materials. These workshops assist the teacher in doing more effective teaching of the disabled learner.

Consultation

To follow up the workshops, consultation is provided for the classroom teacher. Monthly consultation between an IMPACT consultant and a

classroom teacher occur throughout the course of the school year. The teacher and consultant review short-term objectives, make revisions on the program form if warranted and write new objectives. By developing many short-term objectives, the long-range obejctive is then achieved. Consultants also assist the teacher in behavior management and classroom organization.

When the Andrews University supervising teachers of the laboratory school classrooms follow up the instruction received at workshops and from IMPACT consultants regarding children having learning problems and then implement the ideas gained, the student teachers are seeing theory put into practice, new techniques used and problem cases effectively remediated. The results of the instructional contacts are thus spread widely. The IMPACT Workshop Training Kit can also be used in the follow-up instruction by the supervising teachers and student teachers alike.

Graduate Practicum

One of the most helpful cooperative services is the graduate practicum experience for students receiving M.A.'s in reading instruction. These graduate students may choose to have their field work under the guidance of IMPACT personnel, working with the staff and in experimental demonstration classrooms. These classrooms have a high concentration of children with learning disorders. Here the university students are able to have an added experience in diagnosing children with learning problems, writing reports, and assisting in prescriptive instruction, thus making their instruction experiences more practical and meaningful. Of the many classrooms in Berrien County incorporating the IMPACT Principles of a Success-Oriented Curriculum, seven are especially designated as IMPACT

demonstration classrooms and are available for visitor observation. Graduate school students not doing their practicum in these rooms, however, are able to visit two demonstration rooms, seeing classroom activities behind glass windows in the observation area.

The IMPACT Box

The IMPACT staff has identified certain elements which, when in existence, allow the teacher to effectively meet the needs of children in the regular classroom. These elements are entitled: IMPACT's Twelve Principles of a Success-Oriented Curriculum and are in the IMPACT Box. This Box contains 500 file cards organized into a diagnostic/prescriptive teaching system using teacher-administered, nonstandardized assessment techniques, classroom organization and management techniques. This IMPACT Box was presented to the Andrews University Reading Center for experimental purposes and research. Graduate school students especially value the suggestion on informal assessment techniques, corrective reading suggestions, and up to-date resource lists of available learning disability materials. Many of the ideas gleaned from the kit have been used with clients receiving instruction at the Reading Center. These diagnostic/prescriptive procedures help to pinpoint specific strengths and weaknesses of children. The IMPACT Box may be obtained through Academic Therapy Publications, 1539 Fourth Street, San Rafael, California 94901 for $37.50.

Mass Diagnosis

One method of diagnosing children at Andrews University Reading Center is the Case Conference Assessment. Specific days have been assigned for mass diagnosis where a large number of students having special

learning problems receive an all-day comprehensive diagnosis. Each clinician gives a particular test(s), suggested in the IMPACT Box as well as some other instruments for experimental purposes. The clients carry their chart and folders of specific tests to be administered to them for their particular problems from diagnostic station to another, giving them to the clinicians who administer the tests suggested.

The Informal Assessment items suggested in the IMPACT Box are most helpful even though not standardized. These aid the clinicians to better identify the client's modality of learning and to discover many of his strengths and weaknesses.

Check lists of skills have been adapted from the IMPACT Box for use with these clients. They are marked throughout the day during the various assessment tasks and during post-diagnosis evaluation. Later they are used in the follow-up case conferences.

Guest Lecturers

To supplement educational courses at the University different IMPACT staff members have presented lectures on children's learning disorders and discussed what is being done about them. This has given the graduate students an insight into some problems teachers are facing and how they successfully teach children to more effectively reach their academic potential. Vocabulary learned in the textbooks become more meaningful when illustrated with cases of children having figure-ground problems, perseveration, aphasic difficulties, and other learning problems.

University Workshops

A far-reaching effort of IMPACT was a one-week workshop on Learning Disabilities given on the campus of Andrews University for two (2) quar-

ter credits. Students came from many states and other countries to attend this workshop. The IMPACT workers had a major role in conducting the workshop during their vacation time. One of the goals in the planning was high participation and involvement of trainee.

Methods used were role-playing for symptom identification, case studies, and learning stations utilizing materials suggested for children having different modes of learning. Gross motor developmental tasks were performed by all participants, thus enabling them to experience the feelings a child or youth might have doing the same types of activities. Panel discussions were conducted, informal inventory assessment procedures were administered on workshop partners and other observation and participation processes were employed.

Another in-service workshop was planned for Seventh-day Adventist superintendents, national and international, on the Andrews University campus. A team from IMPACT presented a mini-course on Learning Disabilities including showing a film, giving handouts on definitions and symptoms, reporting of case studies, and providing information on state and national trends regarding learning disability education. These superintendents were directed to sources where they might obtain assistance for their teachers who have learning disability children in their classrooms. It was exciting to see how the topic was an eye-opener to the participants.

Dissemination in Community

Being able to use films and other materials from the IMPACT project has not only been beneficial in enhancing knowledge in the classroom but also has proven helpful to parent groups in the community. These films have been used by the IMPACT staff as well as professors to facilitate

parents in early identification of children with learning disabilities. Their latest promotional filmstrip and cassettes to be used for such purposes is "IMPACT - Did Today Matter?" There is no cost for the loan of this awareness filmstrip for a ten-day period.

Universities assist in Evaluation

In the evaluation of the IMPACT project Andrews University professors have participated by filling out questionnaires on the IMPACT Box prepared and by attending the Advisory Council meeting with other professional and non-professional community individuals. Information was given as to how objectives had been met, making the community aware of IMPACT services and effectiveness.

The overall evaluation was conducted by an evaluation team from the R.E.D.F. Center of Western Michigan University headed by Dr. Uldis Smidchens. This Center was contracted to design tools for measuring project effectiveness. The general evaluation findings for the project are:

1) Cognitive knowledge gained as measured on the workshop pre- and post-tests were significant at the .001 level for IMPACT teacher participants.

2) Pre-post classroom observations and interviews conducted by outside evaluators, showed changes recorded on the forms in the areas of physical arrangement, behavior management and learning centers that were significant at the .05 level.

3) IMPACT student program form evaluated. Of the 166 children selected for IMPACT assessment and programming during the 1973-74 school year, 161 were programmed following the IMPACT procedures. There were five(5) children who moved to schools not involved with the program. Ninety-seven percent of short-term objectives stated on IMPACT program forms were met.

Of the long-term objectives stated, 80 percent of those objectives were met.

On the basis of the results of the 1973-74 project year, the evaluation team made the following conclusions:

a) The IMPACT workshop consultation program results in change in teacher's behavior and cognition. These changes enable IMPACT teachers to: i) assess and program for children with special learning behavior problems, ii) implement learning principles consistent with success-oriented curriculum, and in particular to use learning centers to facilitate programming for exceptional children.

b) Children with learning or behavior problems can have critical difficulties remediated or accomodated in the general purpose classroom setting when taught by IMPACT teachers. A related though more tentative conclusion is that-all children in the class of the IMPACT teacher profit from their teacher's changes in behavior and growth and cognitive knowledge.

c) Teachers are able to identify children with learning and behavior problems on the basis of their instructional activities with the children and through observation. This identification is not necessarily categorical, but does include those who are in need of special programming.